



PTO/SB/21 (03-03)

Approved for use through 04/30/2003. OMB 0651-0031

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/691,055
	Filing Date	October 22, 2003
	First Named Inventor	Kryliouk et al.
	Art Unit	
	Examiner Name	
Total Number of Pages in This Submission	Attorney Docket Number	5853-414

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to a Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): PTO/SB/08B; 14 References; and 1 Postcard
Remarks No fee is believed due. However, if any fee is due, the Commissioner is authorized to charge any such fee and any additional fees due or credit any overpayment to Deposit Account No. 50-0951.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual	AKERMAN SENTERFITT Neil R. Jetter
Signature	
Date	March 9, 2004

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: KRYLIOUK et al.

Application No.: 10/691,055

Examiner:

Filed: October 22, 2003

Group Art Unit:

For: GROUP III-NITRIDE ON Si USING EPITAXIAL BP
BUFFER LAYER

CERTIFICATE UNDER 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 9, 2004.

Neil R. Jetter

Commissioner for Patents
Post Office Box 1450
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Date: March 9, 2004

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the Duty to Disclose under 37 C.F.R. §1.56, Applicants hereby disclose information that may be relevant to the Examiner's consideration of the above-identified application and the patentability of its claims.

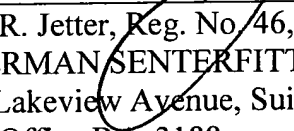
In accordance with Rules 56, 97, and 98 of the Rules of Practice in Patent Cases (37 C.F.R. §§ 1.56, 1.97, and 1.98), Form PTO/SB/08B and copies of references cited therein are submitted for consideration by the Examiner. While the references provided in this Information Disclosure Statement may be material to patentability pursuant to 37 C.F.R. § 1.56, it is not intended to constitute an admission that any reference referred to herein is prior art for this invention unless specially designated as such. Also, in accordance with 37 C.F.R. § 1.97(g), the

In re Application of: KRYLIOUK et al.
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filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists.

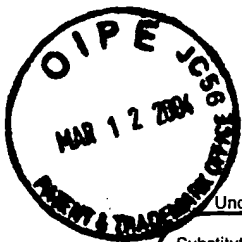
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Respectfully submitted,



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Docket No. 5853-414



PTO/SB/08B (08-03)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/691,055	
	Filing Date	October 22, 2003
	First Named Inventor	Kryliouk et al.
	Art Unit	
	Examiner Name	
Attorney Docket Number	5853-414	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		NIKISHIN et al., "High quality GaN grown on Si(111) by gas source molecular beam epitaxy with ammonia," Applied Physics Letters, 75:2073-2075, 1999	
		ZHANG et al., "Enhanced optical emission from GaN films grown on a silicon substrate," Applied Physics Letters, 74:1984-1986, 1999	
		LINTHICUM et al., "PROCESS ROUTES FOR LOW DEFECT-DENSITY GAN ON VARIOUS SUBSTRATES EMPLOYING PENDEO-EPITAXIAL GROWTH TECHNIQUES," MRS Internet J. Nitride Semicond. Res. 4S1, G4.9, 1999	
		STRITTMATTER et al., "Low-pressure metal organic chemical vapor deposition of GaN on silicon(111) substrates using an AIAs nucleation layer," Applied Physics Letters, 74:1242-1244, 1999	
		SANCHEZ-GARCIA et al., "Ultraviolet electroluminescence in GaN/AlGaIn single-heterojunction light-emitting diodes grown on Si(111)," Journal of Applied Physics, 87:1569-1571, 2000	
		NISHIMURA et al., "Growth of GaN on Si substrates-roles of BP thin layer," Optical Materials, 19:223-228, 2002.	
		NISHIMURA et al., "Low temperature growth interface for growing Boron Monophosphide on Si substrates," Applied Surface Science, 159-160:288-291, 2000.	
		NISHIMURA et al., "Growth of c-GaN on Si(100)," Materials Science and Engineering," B82:25-26, 2001.	
		IZUMIYA et al., "Growth of BP and GaN/BP heterostructures," Proceedings of the 19th International Symposium on Gallium Arsenide and Related Compounds, 157-162, 1993.	
		NISHINAGA et al., "Effect of Growth Parameters on the Epitaxial Growth of BP on Si Substrate," Japanese Journal of Applied Physics, 14:753-760, 1975.	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Sheet 2 of 2

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		LANDOLT-BORNSTEIN, "Semiconductors," 3:14-28 and 43-50.	
		WELKER et al., "Solid State Physics," Group III-Group V Compounds, 1-78, 1956.	
		Johnson, S., "CHAPTER 3 GROWTH OF BP BY CVD" Ph.D. Thesis, 2001.	
		TERASHIMA et al., "Proceedings of the 8th International Symposium on Silicon Materials Science and Technology," 2:44-45, 1998.	

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